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Nikolai G. Nikolov

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BLAKELY SOKOLOFF TAYLOR & ZAFMAN LLP

1279 OAKMEAD PARKWAY

SUNNYVALE, CA 94085-4040

EXAMINER

RUTTEN, JAMES D

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



### **DETAILED ACTION**

1. This action is in response to Applicant's submission filed 12/18/2009, responding to the 9/17/2009 Office action which detailed the rejection of claims 40-54. Claims 40-41, 45-46, and 50-51 have been amended. Claims 40-54 remain pending in the application and have been fully considered by the examiner.

### ***Response to Arguments/Amendments***

2. Applicant's amendments of claims 41, 46, and 51, with respect to the rejections and arguments under 35 U.S.C. § 112, second paragraph are persuasive. Likewise, the rejection is withdrawn.

3. Applicant's arguments filed 12/18/2009 have been fully considered but they are not persuasive. On pages 7-9, Applicant essentially argues that the combination of prior art of record Berry and Ims teach that "all classfiles within an archive file received from a network are modified but less than all of the methods within these classfiles need to be modified," in contrast to the claims which recite "modifying bytecode of only one classfile within any one of [the] archive files" where "[the] archive files [have] respective classfiles." In support of the argument, Applicant cites various portions, including Berry column 5 lines 16-20: "The Java Runtime is modified, using the method of the present invention so that it provides functionality to modify all class files that the Runtime loads across the network for subsequent execution." Applicant also provides the following citation at Berry column 7 lines 5-11: "Selective instrumentation is possible if only some of the methods are to be instrumented. In the described embodiment, an inclusion/exclusion list is used to specify which methods are to be instrumented." The cited

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portions show that Berry discloses modification of methods that appear in an inclusion list, where the methods are present in a loaded classfile. If a single method is listed in the inclusion list, while all other methods are provided in the exclusion list, only the single method in a single classfile is modified. While the cited portions do not provide extensive details regarding the available permutations of methods and classfiles that could be modified through use of the inclusion/exclusion lists, Berry provides implicit support for modification of a single method among one or more classfiles. In other words, the inclusion/exclusion lists provide for the modification of all methods, the modification of none of the methods, and everything in-between; including the modification of only one method, which necessarily involves only one classfile. Furthermore, column 8, lines 29-34 describes the process of Fig. 7 for injecting hooks in "a method" of "a class file." This passage could be interpreted as providing explicit support for "modifying bytecode of only one classfile" and of "only one method" as claimed.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 40-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,662,359 (Berry et al.) in view of U.S. Patent No. 6,560,618 (Ims).

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Regarding claim 40, *Berry et al.* discloses a method comprising reading program code from memory and processing said program code with one or more processors to perform the following:

providing a user with options for modifying an application's bytecode, said application composed of class files, said class files having respective methods, said options including one or more of the following:

i) modifying bytecode of only one classfile;

ii) modifying bytecode of only one method within only one of the [application's] respective classfiles (*see, e.g., Berry et al.* at col. 5, line 59, through col. 6, lines 45; col. 7, lines 5-11 (selective instrumentation of some or all methods); Furthermore, see column 8 lines 29-34 with respect to Fig. 7);

modifying bytecode of said application in accordance with said user's selection of one of said options (*see, e.g., Berry et al.* at col. 5, line 59, through col. 6, lines 45; col. 6, line 51, through col. 7, line 17);

executing said application in an object oriented runtime frame work, said executing including processing a portion of said application's bytecode that was modified in accordance with said user's selection of one or more of said options (*see, e.g., Berry et al.* at col. 7, lines 44-45); and,

presenting to said user an output generated from execution of said portion of said application's bytecode that was modified (*see, e.g., Berry et al.* at col. 6, lines 55-65).

*Berry et al.* fails to expressly disclose said application composed of a plurality of archive files, said archive files having respective class files. However, *Im* teaches that it has been

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known for JAVA applications (like those modified by *Berry*) to be arranged into archive files to ensure that all required files and classes are available (see, e.g., *Im*s at col. 2, lines 1-11).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize archive files as a known means of organizing JAVA applications.

Regarding claim 41, *Berry et al.* further discloses said object oriented runtime framework being a JAVA compliant object oriented runtime framework (see, e.g., *Berry et al.* at col. 4, lines 22-29).

Regarding claim 42, *Berry et al.* further discloses said application's bytecode that was modified including a method entry or method exit (see, e.g., *Berry et al.* at col. 6, line 51, through col. 7, line 17).

Regarding claim 43, *Berry et al.* further discloses said output being provided by a plug-in that a bytecode instruction inserted at said method entry or method exit is dispatched to (see, e.g., *Berry et al.* at col. 6, line 51, through col. 7, line 17).

Regarding claim 44, *Berry et al.* further discloses said output including one of: a time at which said method entry or method exit was entered; and, a parameter that is passed at said method entry or method exit (see, e.g., *Berry et al.* at col. 6, lines 1-16; col. 6, line 51, through col. 7, line 17).

Regarding claims 45-49, these are machine-readable storage medium versions of the claimed methods discussed above (claims 40-44). *Berry et al.* further discloses the use of such media to implement the prescribed methods (see, e.g., *Berry et al.* at col. 14, lines 30-44), and all other limitations have been addressed as set forth above.

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Regarding claims 50-54, these are computer system versions of the claimed methods discussed above (claims 40-44). *Berry et al.* further discloses the use of such systems/software to implement the prescribed methods (*see, e.g., Berry et al.* at col. 14, lines 30-44), and all other limitations have been addressed as set forth above.

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES RUTTEN whose telephone number is (571)272-3703. The examiner can normally be reached on M-F 10:00-6:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571)272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. Derek Rutten/  
Primary Examiner, Art Unit 2192